



# KEYSTONE CEMENT COMPANY

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Mr. Ed Vollberg  
U. S. Environmental Protection Agency  
Region III  
841 Chestnut St.  
Philadelphia, PA 19107

RE: Revisions To Keystone Cement Company's Phase II  
RCRA Facility Assessment

Dear Mr. Vollberg:

Thank you for forwarding to us a copy of the Phase II RCRA Facility Assessment prepared by A. T. Kearney, Inc. We have carefully reviewed the RFA report and as I explained in our telephone conversations we have discovered a number of deficiencies.

As you will note, evidenced by this submittal, Keystone has been busy in the past year implementing the recommendations which will assure regulatory compliance and environmental integrity. For the most part the Facility assessment is accurate and complete; however, primarily due to the one year's time which has elapsed since its publication, many changes have occurred at Keystone Cement Company.

The enclosed document is a compilation of revisions, modifications, and supplemental information to Keystone Cement Company's RCRA Facility Assessment to assist you in the development of permit conditions under the Hazardous and Solid Waste Amendments of 1984 (HSWA).

Sincerely,

Michael J. Luybli,  
Environmental Engineer

REVISIONS AND SUPPLEMENTAL INFORMATION  
TO  
PHASE II  
RCRA FACILITY ASSESSMENT  
KEYSTONE CEMENT COMPANY  
BATH, PENNSYLVANIA

PREPARED FOR:

U. S. ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
841 CHESTNUT STREET  
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AUGUST 26, 1988

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## I. INTRODUCTION

The purpose of this report is to update and supplement the information contained in the Phase II RCRA Facility Assessment of Keystone Cement Company prepared by A. T. Kearney, Inc. on May 29, 1987, (hereafter referred to as the RFA report).

Section II of this report contains two revisions to the Facility and Process Description as published in the RFA report. Section III summarizes supplemental information which characterize soil, air, and groundwater quality at Keystone Cement Company. Section IV contains revisions to identified SWMU's and references to applicable supplemental information appendixes. Section IV is indexed by SWMU number for ease of reference. Section V contains supplemental information appendixes.

## II. FACILITY AND PROCESS DESCRIPTION (Revised)

There are two (2) items which need to be clarified with respect to the narrative description contained in Section III of the RFA report.

- 1). The daily clinker production at Keystone Cement Company (KCC) is approximately 2,000 tons per day ... (not 1,450 as reported in the RFA report). Kiln No. 1 produces approximately 450 tons of clinker per day and kiln No. 2 produces approximately 1,550 tons of clinker per day.
- 2). Waste solvents are utilized at a rate of 50% on a BTU basis to that of coal. The RFA reported utilization of 10% by weight of coal is inaccurate. See Appendix B - "Cement Kiln Operating Permits".

SWMU NO. 1 - Small Rotary Cement Kiln (Kiln No. 1)

Unit Description Revisions:

- 1). Production rate is approximately 450 tons per day of clinker.
- 2). The kiln temperature ranges from 500 degrees F. at the feed end to an internal material temperature of 2700 degrees F.
- 3). The rate of solvent consumption is reported to be 50% on a BTU basis to that of coal.

Supplemental Information:

o Appendix B - DER Air Quality Operating Permit, Kiln No. 1  
DER Operating permit specifies allowable solvent consumption rate, chloride concentration, and PCB concentration into the kiln.

o Appendix C - KVB Monitor System

o Appendix E - Total Hydrocarbon Stack Test  
Unit has been tested and shown to combust the waste solvent fuel to 99.99 percent.

o Appendix F - HCL Stack Sampling Report  
Unit has been tested and shown to have a greater than 95% removal efficiency.

o Appendix G - Ambient Modeling Study  
The unit has been tested and the ambient air quality impact of trace metals and HCL has been proven to be well below 1/3 of the PADER'S ATG values.

o Appendix D - Continuous Emission Monitor, Opacity Quarterly Report  
Average stack opacities of this unit are less than 10%.

o Appendix P - DER Inspection Reports  
DER Quarterly Inspection Reports (1986-1988) indicate there are no areas of non-compliance at Keystone Cement Company with the exception of an incidental reporting error discovered in September of 1986. This error was immediately corrected.

SWMU NO. 2 - Large Rotary Cement Kiln (Kiln No. 2)

Unit Description Revisions:

- 1). Production rate is approximately 1550 tons of clinker per day.
- 2). The kiln temperatures range from 500 degrees F. at the feed end to an internal material temperature of 2700 degrees F.
- 3). The rate of solvent consumption is reported to be 50% on a BTU basis to that of coal.
- 4). Presently the unit is permitted to use mixed waste solvents with a thermal value of 8,000 BTU/lb. and a chlorine content less than three percent. These waste include F003, F005, and D001. (Typographical error in RFA report stipulated D002).

Supplemental Information:

o Appendix DD - Feed Spill Material Composition:

Slurry is a mixture of crushed limestone and water and contains no hazardous ingredients. Incidental slurry spills are cleaned up and reintroduced into the process.

o Appendix B - DER - Air Quality Operating Permit, Kiln No.2

o Appendix C - KVB Monitor System.

o Appendix E - Total Hydrocarbon Stack Test.

o Appendix F - HCL Stack Sampling Report.

o Appendix G - Ambient Modeling Study.

o Appendix D - Continuous Emission Monitor, Opacity  
Quarterly Report.

o Appendix P - DER Inspection Report.

SWMU NO. 3 - Coal Screen Collection Drums

Unit Description:

The drums used to collect debris in the crushed coal line are housed within a building and are not subject to the environment. The drums are maintained in good condition and the concrete floor provides for secondary containment of any incidental spills.

Supplemental Information:

o Appendix Q - Coal Composition (Analytical Values).

SWMU NO. 4 - Clinker Cooler Baghouse

Unit Description Revisions:

- 1). There are 12 Modules in the collector, eleven of which are on streams while one is cleaning.

Supplemental Information:

- o Appendix R - DER Operating Permits, Clinker Cooler Dust Collectors.

SWMU NO. 5 - Electrostatic Precipitator No. 1

Date of Start-up: 1958

Supplemental Information:

o Appendix S - Electrostatic Precipitator No. 1 Rebuild

In July, 1987, this unit was completely rebuilt and upgraded using state of the art components purchased from Research Cottrell. Purchase orders and invoices are submitted to detail the scope of repairs to this unit.

o Appendix D - Continuous Emission Monitor, Opacity Quarterly Report

Average opacity is less than 10% (1988)

SWMU NO. 6 - Electrostatic Precipitator No. 2

Date of Start-up: 1966

Waste Managed (Revised):

Exhaust gases and dust from Kiln No. 2 (Typographical error in RFA report indicates Kiln No.1).

Supplemental Information:

o Appendix T - Electrostatic Precipitator No. 2 Rebuild

In March, 1988, this unit was completely rebuilt and upgraded using state of the art components purchased from Research Cottrell. Purchase orders and invoices are submitted to detail the scope of repairs to this unit.

o Appendix D - Continuous Emission Monitor, Opacity Quarterly Report

Average opacity is less than 10% (1988).

SWMU NO. 7 - Dust Hopper Discharge Area

Unit Description (Revised):

- 1). Fourth stage kiln dust drops into the hopper and is released into trailers for sale, insufflation or to be removed to a storage pile until sold.

Waste Managed Revised:

Residual kiln dust is loaded into truck trailers not discharged onto the ground.

Supplemental Information:

o Appendix EE - Dust Tank Baghouse Installation

In November of 1986 a Standard Havens Delta/Mark I Baghouse was purchased and installed to eliminate fugitive dust emissions from this unit. Copies of the Standard Havens proposal, purchase order and invoices are submitted to detail the scope of repairs to this unit.

o Appendix U - Cement Dust Sales Report (1979-1988)

o Appendix J - Kiln Dust TCLP Analysis

SWMU NO. 8 - Kiln Dust Piles

Supplemental Information:

o Appendix J - Kiln Dust TCLP Analysis

The results of EPA leachate testing on waste dust indicate the kiln dust to be non-hazardous and non-threatening to the environment.

o Appendix U - Cement Dust Sales Report (1979-1988)

As of August 1, 1988, Keystone Cement Company has sold 236,266 tons of cement dust.

## SWMU NO. 9 - Solvent Unloading Stations

### Supplemental Information:

#### o Appendix L - Containment Pad Crack Sealant Integrity Test

The asphaltic crack sealant used in cracks and construction joints is compatible and maintains its structural integrity when subjected to waste solvents.

#### o Appendix P - DER Inspection Reports

This area is inspected quarterly by DER and there are no notice of violations associated with this unit.

#### o Appendix V - Foam Firefighting System

Installation of a foam fire fighting system was completed in November, 1987. This system when activated will immediately envelope the containment pad and solvent storage tank areas with fire suppressant foam through strategically mounted spray nozzles and manually operated hoses.

#### o Appendix W - Video Surveillance System

A video surveillance system was purchased from Hi-Tech Security Alarms and installed in August, 1986. This system provides continuous surveillance of the solvent storage area and solvent unloading pad.

SWMU NO. 10 - Waste Solvent Filter Boxes

No revisions or Supplemental information.

SWMU NO. 11 - Filter Scrapings Collection Hoppers

Release Controls (Revised):

The unit is located within the containment of the unloading station (Unit 9). Each unit has a metal lid which is kept closed when not in use. NOTE: The units had lids at the time of the RFA inspection.

Supplemental Information:

o Appendix A - SWMU Photograph Log

See Unit No. 11

SWMU NO. 12 - Solvent Drippings Collection Sumps

o Appendix A - SWMU Photograph Log

See SWMU No 12

o Appendix H - Sump Area Soils Analysis

SWMU NO. 13 - Solvent Scrapings Roll-Off Box

Unit Description (Revised):

The unit is a ten cubic yard steel roll-off box with secondary containment and a corrugated metal cover.

Release Control (Revised):

The unit is located on a concrete bermed containment pad and has a corrugated metal lid.

Supplemental Information:

o Appendix I - Roll-off Box Containment Pad Construction Permit

o Appendix L - Containment Pad crack Sealant Integrity Test

o Appendix A - SWMU Photograph Log

See SWMU No. 13

SWMU NO. 14 - Horizontal Waste Solvent Storage Tanks

Waste Managed (Revised):

Permitted wastes include F003, F005, and D001 mixed waste with a thermal value of at least 8,000 BTU/lb. and Chlorine content of less than three percent. Hazardous wastes that may have been stored in the unit include F001, F002, D001, & D007. D002 waste material is not permitted and has never been stored in this unit.

Supplemental Information:

- o Appendix AA - DER Operating Permits, Tanks 1A, 1B, 2A, 2B, 33,000 gallons
- o Appendix V - Foam Firefighting System
- o Appendix W - Video Surveillance System
- o Appendix P - DER Inspection Report
- o Appendix L - Containment Pad Crack Sealant Integrity Test

SWMU NO. 15 - Vertical Waste Solvent Storage Tank

Same revisions and supplemental information as stated in SWMU  
No. 14

SWMU NO. 16 - Steel Refractory Unit

Waste Managed (Revised):

Steel waste solvent filter baskets are ignited to burn off viscous waste solvent (F003, F005, D001) that collect in the baskets.

SWMU NO. 17 - Hoffman Dust Collector

No revisions or supplemental information.

SWMU NO. 18 - Demolition Debris Bay

Unit Description (Revised):

...The base of the unit is concrete. The RFA report incorrectly states this floor to be asphalt.

Waste Managed:

The waste managed is non-hazardous.

SWMU NO. 19 - Wastewater Storage Silo (Storage Tank No. 4)

Date of Start-up:

Keystone began using wastewater for slurry addition in 1986 for a period of six months. The status of this unit is currently inactive.

Supplemental Information:

o Appendix BB - DER Trial Process Burn Approval

o Appendix CC - Wastewater Tank Structural Integrity Test

SWMU NO. 20 - Water/Wastewater Blending Sump

Date of Start-up: 1986

Supplemental Information:

o Appendix BB - DER Trial Process Burn Approval

SWMU NO. 21 - Bermed Drum Storage Area

Unit Description:

Presently only twenty (20) drums remain in this area. All visible spillage on the ground as well as material contained in the drums has been removed and processed through the rotary kilns.

Date of Closure:

The unit is presently inactive and closure of this unit is in progress.

SWMU NO. 22 - Grease Drum Cleaning Operation

Date of Closure:

This unit is presently inactive and closure of this unit is in progress. All visible spillage has been removed and processed through the rotary kilns.

SWMU NO. 23 - Grease Drum Discharge Tank

Date of Closure:

This unit is presently inactive and closure of this unit is in progress. All visible spillage has been removed and processed through the rotary kilns.

SWMU NO. 24 - Drum Storage Area Near Cooling Water Discharge

No revisions or supplemental information.

SWMU NO. 25 - Abandoned Oil Tank

This unit was not abandoned it was simply taken out of service.

SWMU NO. 26 - Waste Oil Filter Drum Staging Area

Supplemental Information:

- 1). A waste oil drain tank has been installed to collect used oil from the filters. This oil is subsequently processed
- 2). All waste oil filters are currently being shipped off-site for disposal.
- 3). All visible spillage in this area has been removed and processed through the rotary kilns.

SWMU NO 27 - Safety Kleen Parts Washer

Supplemental Information:

o Appendix GG - Safety Kleen Contract

Safety Kleen solvent is not regulated by RCRA. All waste material generated via this unit is collected by Safety Kleen for reclamation and is documented on shipping papers which satisfy the requirements of 40 CFR 262.20(e).

SWMU NO. 28 - Transformer Storage Area

No revisions or supplemental information.

SWMU NO. 29 - Coal Tar Storage Area

No revisions or supplemental information.

SWMU NO. 30 - Railroad Car Storage Tank

Date of Closure:

The unit was last used for hazardous waste storage in 1978. It was cleaned and was shipped off-site in August, 1988.

SWMU NO. 31 - Air Compressor Oil/Water Separator

Supplemental Information:

Collected oil and water is processed in the rotary kilns.

SWMU NO. 32 - Packhouse Scrap Yard

Supplemental Information:

All drums contained in this unit are crushed, empty drums.

Other Areas of Concern

No revisions or supplemental information.